

REMARKS

The Examiner has rejected claim 12 under 35 U.S.C. 102(e) as being anticipated by He et al ("He"), and claim 13 under 35 U.S.C. 103(a) as being unpatentable further in view of Minamino et al ("Minamino"). Applicant respectfully traverses these rejections by the Examiner.

He describes a polarization independent photodetector assembly where the photodetector is tilted with respect to the optical axis from an optical fiber which couples light to the photodetector. There is no indication that the optical fiber has a beveled end. To determine the axes about which the air/glass, glass/air and air/detector interfaces are to be tilted, the PDR of the detector is measured before assembly by illuminating the detector with a source of light having a plurality of polarization states. The optical axis is orthogonal to the surface of the detector, with the detector being mounted rotatably in a bracket. While the state of polarization (SOP) is changing, maximum and minimum levels of the output from the detector are determined. Then a polarizer is used to establish the orientation of the SOP for the maximum or minimum level, and the detector is rotated in the bracket until the minimum response axis is aligned with an arm of the bracket. The surface of the arm is used as the reference when mounting the photodetector in the holder and tilting the bracket. The bracket is mounted in the holder and tilted until the difference between maximum and minimum values of the output from the detector is at a minimum, at which point the bracket is secured in the holder.

Claim 12 recites "providing a source of light having a plurality of polarization states to the optical fiber" of a fiber pigtailed assembly. In adjusting the tilt in He the source of light is provided to the optical fiber of the detector assembly, but only tilt is adjusted – there is at this point no rotation of the photodetector. Claim 12 then recites "adjusting a rotation angle between a *beveled* end of the optical fiber and a detector surface . . ." where the detector surface is "tilted with respect to the beveled

end . . .” There is in He no “beveled” end on the optical fiber, and the only rotation of the detector occurs prior to tilting, i.e., prior to the detector being mounted in the detector assembly, so He does not teach rotation between a tilted detector and a beveled end of the optical fiber. Therefore He does not teach or suggest the adjustment method as recited in claim 12 and claim 12 is deemed to be allowable as being neither anticipated nor rendered obvious to one of ordinary skill in the art by He.

Claim 13 further recites the steps of “adjusting a tilt angle between the detector surface and the beveled end” to find a minimum peak-to-peak value from the detector, and “iterating the rotation and tilt angle adjusting steps to obtain the lowest minimum peak-to-peak value.” Since claim 13 depends from claim 12, deemed to be allowable, and recites additional significant steps, claim 13 also is deemed to be allowable. Minamino only addresses reducing light reflection by tilting a ferule surface with respect to a light emitting laser array, and not PDR minimization as recited in these claims. Further Minamino does not disclose a beveled fiber end or rotation of a detector (Minamino only has sources) that is tilted relative to the beveled fiber end. Therefore the combination of Minamino with He still does not produce the invention as recited in claim 13. Therefore claim 13 also is deemed to be allowable as being nonobvious to one of ordinary skill in the art over He in view of Minamino.

In view of the foregoing argument allowance of claims 12 and 13 is urged, and such action and the issuance of this case are requested.

Respectfully submitted,

DUWAYNE R. ANDERSON

TEKTRONIX, INC.
P.O. Box 500 (50-LAW)
Beaverton, OR 97077

(503) 627-7261

7249 US 1

By 

Francis I. Gray
Reg. No. 27,788
Attorney for Applicant